

building_damage_by_type

Field/Value	Description	Unit
BldgType	Construction type codes	Code
C1H	Concrete Moment Frame High-Rise	
C1L	Concrete Moment Frame Low-Rise	
C1M	Concrete Moment Frame Mid-Rise	
C2H	Concrete Shear Walls High-Rise	
C2L	Concrete Shear Walls Low-Rise	
C2M	Concrete Shear Walls Mid-Rise	
C3H	Concrete Frame with Unreinforced Masonry Infill Walls High-Rise	
C3L	Concrete Frame with Unreinforced Masonry Infill Walls Low-Rise	
C3M	Concrete Frame with Unreinforced Masonry Infill Walls Mid-Rise	
DFLT	Default (Wood)	
MH	Manufactured Home	
PC1	Precast Concrete Tilt-Up Walls	
PC2H	Precast Concrete Frames with Concrete Shear Walls High-Rise	
PC2L	Precast Concrete Frames with Concrete Shear Walls Low-Rise	
PC2M	Precast Concrete Frames with Concrete Shear Walls Mid-Rise	
RM1L	Reinforced Masonry Bearing Walls with Wood or Metal Deck Diaphragms Low-Rise	
RM1M	Reinforced Masonry Bearing Walls with Wood or Metal Deck Diaphragms Mid-Rise	
RM2H	Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms High-Rise	
RM2L	Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms Low-Rise	
RM2M	Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms Mid-Rise	
S1H	Steel Moment Frame High-Rise	
S1L	Steel Moment Frame Low-Rise	
S1M	Steel Moment Frame Mid-Rise	
S2H	Steel Braced Frame High-Rise	
S2L	Steel Braced Frame Low-Rise	
S2M	Steel Braced Frame Mid-Rise	
S3	Steel Light Frame	
S4H	Steel Frame with Cast-in-Place Concrete Shear Walls High-Rise	
S4L	Steel Frame with Cast-in-Place Concrete Shear Walls Low-Rise	
S4M	Steel Frame with Cast-in-Place Concrete Shear Walls Mid-Rise	
S5H	Steel Frame with Unreinforced Masonry Infill Walls High-Rise	
S5L	Steel Frame with Unreinforced Masonry Infill Walls Low-Rise	
S5M	Steel Frame with Unreinforced Masonry Infill Walls Mid-Rise	
URML	Unreinforced Masonry Bearing Walls Low-Rise	
URMM	Unreinforced Masonry Bearing Walls High-Rise	
W1	Wood, Light Frame (= 5,000 sq. ft.)	
W2	Wood, Commercial and Industrial Wood (>5,000 sq. ft.)	
NoDamage*	Number of buildings whose probability of sustaining no damage exceeds 50%	Building count
Affected*	Number of buildings whose probability of sustaining slight damage exceeds 50% and no greater category exceeds 50%	Building count
	Number of buildings whose probability of sustaining moderate damage exceeds 50% and no greater category exceeds 50%	Building count
Minor*	Number of buildings whose probability of sustaining extensive damage exceeds 50% and no greater category exceeds 50%	Building count
Major*	Number of buildings whose probability of sustaining extensive damage exceeds 50% and no greater category exceeds 50%	Building count

Destroyed*	Number of buildings whose probability of sustaining complete damage exceeds 50%	Building count
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*See Hazus Earthquake Technical Manual for descriptions of damage states according to construction type

building_damage_by_occupancy

Field/Value	Description	Unit
BldgType	Construction type codes	Code
AGR1	Agriculture	
COM1	Retail Trade	
COM10	Parking	
COM2	Wholesale Trade	
COM3	Personal and Repair Service	
COM4	Financial/Professional/Technical Services	
COM5	Banks	
COM6	Hospitals	
COM7	Medical Offices/Clinic	
COM8	Entertainment & Recreation	
COM9	Theaters	
EDU1	Schools	
EDU2	Colleges/Universities	
GOV1	General Services	
GOV2	Emergency Response	
IND1	Heavy	
IND2	Light	
IND3	Food/Drug/Chemical	
IND4	Metals/Minerals Processing	
IND5	High Technology	
IND6	Construction	
REL1	Church	
RES1	Single Family Dwelling	
RES2	Manufactured Home	
RES3A	Multi Family Dwelling A	
RES3B	Multi Family Dwelling B	
RES3C	Multi Family Dwelling C	
RES3D	Multi Family Dwelling D	
RES3E	Multi Family Dwelling E	
RES3F	Multi Family Dwelling F	
RES4	Temporary Lodging	
RES5	Institutional Dormitory	
RES6	Nursing Home	
NoDamage*	Number of buildings whose probability of sustaining no damage exceeds 50%	Building count
Affected*	Number of buildings whose probability of sustaining slight damage exceeds 50% and no greater category exceeds 50%	Building count
Minor*	Number of buildings whose probability of sustaining moderate damage exceeds 50% and no greater category exceeds 50%	Building count
Major*	Number of buildings whose probability of sustaining extensive damage exceeds 50% and no greater category exceeds 50%	Building count

Destroyed*	Number of buildings whose probability of sustaining complete damage exceeds 50%	Building count
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county_results & tract_results

Field/Value	Description	Unit
CountyFips	5-digit census code for county	
EconLoss	Financial impacts from building damages, building content damages, wages and income lost, relocation costs, and lost rent payments	Thousands of dollars
Population	Total county population	People
Households	Total county households	Households
DebrisBW	Debris generated from brick and wood structures	Thousands of tons
DebrisCS	Debris generated from concrete and steel structures	Thousands of tons
DisplHouse	Number of households displaced from their homes due to building damages	Households
Shelter	Number of people needing public shelter assistance	People
NiteL1Inj**	Number of injuries sustained during a nighttime earthquake requiring basic medical care that can be administered by a paraprofessional	People
NiteL2Inj**	Number of sustained during a nighttime earthquake injuries requiring a greater degree of medical care that are not life-threatening	People
NiteL3Inj**	Number of injuries sustained during a nighttime earthquake that pose an immediate life threatening condition if untreated	People
NiteFataIs	Number of deaths sustained during nighttime earthquake	People
DayL1Inj**	Number of injuries sustained during a daytime earthquake requiring basic medical care that can be administered by a paraprofessional	People
DayL2Inj**	Number of sustained during a nighttime daytime injuries requiring a greater degree of medical care that are not life-threatening	People
DayL3Inj**	Number of injuries sustained during a daytime earthquake that pose an immediate life threatening condition if untreated	People
DayFataIs	Number of deaths sustained during daytime earthquake	
NoDamage*	Number of buildings whose probability of sustaining no damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
Affected*	Number of buildings whose probability of sustaining slight damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
Minor*	Number of buildings whose probability of sustaining moderate damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
Major*	Number of buildings whose probability of sustaining extensive damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
Destroyed*	Number of buildings whose probability of sustaining complete damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RES1NoDam	Number of single-family buildings whose probability of sustaining no damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RES1Affect	Number of single-family buildings whose probability of sustaining slight damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RES1Minor	Number of single-family buildings whose probability of sustaining moderate damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RES1Major	Number of single-family buildings whose probability of sustaining extensive damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RES1Destr	Number of single-family buildings whose probability of sustaining complete damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RES2NoDam	Number of mobile homes whose probability of sustaining no damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RES2Affect	Number of mobile homes whose probability of sustaining slight damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RES2Minor	Number of mobile homes whose probability of sustaining moderate damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RES2Major	Number of mobile homes whose probability of sustaining extensive damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RES2Destr	Number of mobile homes whose probability of sustaining complete damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
PGA	Mean strength of ground motions experienced in county	Percent of acceleration due to gravity
State	State abbreviation for county	Text
CountyName	Name of county	Text
AirportFlty	Number of airport facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
BusFlty	Number of bus facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
CareFlty	Number of hospitals whose probability of being functional on the first day of the earthquake is less than 50%	Building count
FireStation	Number of fire stations whose probability of being functional on the first day of the earthquake is less than 50%	Building count
EmergencyCtr	Number of emergency centers whose probability of being functional on the first day of the earthquake is less than 50%	Building count
PoliceStation	Number of police stations whose probability of being functional on the first day of the earthquake is less than 50%	Building count
School	Number of schools whose probability of being functional on the first day of the earthquake is less than 50%	Building count
FerryFlty	Number of ferry facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
HighwayBridge	Number of highway bridges whose probability of being functional on the first day of the earthquake is less than 50%	Building count
HighwayTunnel	Number of highway tunnels whose probability of being functional on the first day of the earthquake is less than 50%	Building count
PortFlty	Number of port facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
RailFlty	Number of railway facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
RailwayBridge	Number of railway bridges whose probability of being functional on the first day of the earthquake is less than 50%	Building count
ElectricPowerFlty	Number of electric power facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
CommunicationFlty	Number of communication facilities (not towers) whose probability of being functional on the first day of the earthquake is less than 50%	Building count
OilFlty	Number of oil facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
PotableWaterFlty	Number of potable water facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
WasteWaterFlty	Number of waste water facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count

*See Hazus Earthquake Technical Manual for descriptions of damage states according to construction type

**See Hazus Earthquake Technical Manual for descriptions of injury levels

damaged_facilities

Field/Value	Description	Unit
Anchor	Are components anchored (1=yes; 0=no)?	Integer, 0 or 1
BreakRatePGD	Number of breaks per km based on permanent ground deformation	Breaks/km
BreakRatePGV	Number of breaks per km based on peak ground velocity	Breaks/km
LeakRatePGD	Number of leaks per km based on permanent ground deformation	Breaks/km
LeakRatePGV	Number of leaks per km based on peak ground velocity	Breaks/km
DaysRepairBreaks	Number of days to repair pipeline breaks	Days
DaysRepairLeaks	Number of days to repair pipeline leaks	Days
TotalBreakRate	Number of breaks per km	Breaks/km
TotalDysRepairs	Number of days to repair pipeline leaks and breaks	Days
TotalLeakRate	Number of leaks per km	Leaks/km
TotalNumBreaks	Total number of pipeline breaks	Breaks
TotalNumLeaks	Total number of pipeline leaks	Leaks
TotalNumRepairs	Total number of pipeline repairs (leaks and breaks)	Repairs
TotalRepairRate	Total number of repairs per day	Repairs/day
DesignLevel	Strength of the seismic engineering design code to which facility was built	Code
LC	Low code	
MC	Moderate code	
HC	High code	
Distance	Site distance to the earthquake source (0 or NA for ShakeMap)	km
EconLoss	Building damages based on replacement cost	Thousands of Dollars
Fac_Type	Type of facility	Text
FoundationType	Is there a deep foundation system (1=yes; 0=no)?	Integer, 0 or 1
FunctDay1	Probability that facility is functional on the first day of earthquake	Percent chance
FunctDay3	Probability that facility is functional 3 days after earthquake	Percent chance
FunctDay7	Probability that facility is functional 7 days after earthquake	Percent chance
FunctDay14	Probability that facility is functional 14 days after earthquake	Percent chance
FunctDay30	Probability that facility is functional 30 days after earthquake	Percent chance
FunctDay90	Probability that facility is functional 90 days after earthquake	Percent chance
LndPGD	Permanent ground deformation due to landslide	inches
LndProb	Probability of landslide at facility	Percent chance
LndSusCat	Landslide susceptibility category (0=none-->10=very high)	Integer, 0-10
LqfProb	Probability of liquefaction at facility	Percent chance
LqfSettlPGD	Permanent ground deformation due to liquefaction settlement	inches
LqfSprPGD	Permanent ground deformation due to liquefaction spreading	inches
LqfSusCat	Landslide susceptibility category (0=none-->5=very high)	Integer, 0-5
PDsComplete*	Probability of building sustaining complete damage	Percent chance
PDsExceedExtensive	Probability of building sustaining damage that equals or exceeds extensive	Percent chance
PDsExceedModerate	Probability of building sustaining damage that equals or exceeds moderate	Percent chance
PDsExceedSlight	Probability of building sustaining damage that equals or exceeds slight	Percent chance
PDsExtensive*	Probability of building sustaining extensive damage	Percent chance
PDsModerate*	Probability of building sustaining moderate damage	Percent chance
PDsNone*	Probability of building sustaining no damage	Percent chance
PDsSlight*	Probability of building sustaining slight damage	Percent chance
PGA	Peak ground acceleration at facility	Percent of acceleration due to gravity
PGV	Peak ground velocity at facility	in/sec
Sa03	Spectral acceleration at 0.3 seconds	Percent of acceleration due to gravity
Sa10	Spectral acceleration at 1.0 seconds	Percent of acceleration due to gravity
SoilType	Type of soil at facility (Type A, B, C, D, E)	Code
SuffltRuptPGD	Permanent ground deformation due to surface fault rupture	inches
SurfFltRuptProb	Probability of surface fault rupture at facility	Percent chance
WaterDepth	Depth to ground water	Feet
eqBldgType	Specific earthquake building types	Type

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